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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,720	01/19/2007	Jae Sic Jeon	110989-05127062	6237
23429 7590 09/24/2008 LOWE HAUPTMAN HAM & BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 ALEXANDRIA, VA 22314				
EXAMINER				
CHIEN, SHIN HON				
ART UNIT		PAPER NUMBER		
2131				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/551,720

**Applicant(s)**

JEON ET AL.

**Examiner**

SHIN-HON CHEN

**Art Unit**

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-12 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 03 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-12 have been examined.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-12 are rejected under 35 U.S.C. 102 (b) as being anticipated by Forrest U.S. Pub. No. 20040124966 (hereinafter Forrest).

4. As per claim 1, Forrest discloses a system for user authentication using infrared communication of a mobile terminal, comprising:

a mobile terminal for generating electronic signature data (Forrest: [0033]: the identification data./electronic signature of user; ) for a user who requests a particular service in the form of an infrared signal with a view to performing a step of user authentication (Forrest: [0036] lines 15-18: communicate through IR ports);

automated information providing means for verifying the electronic signature data provided by the mobile terminal and for allowing the requested service depending on the verification result (Forrest: [0055] lines 1-22: verifying the identification data/electronic signature prior to allowing transaction); and

certificate providing means for registering a certificate in response to a request for issuance of the certificate by the mobile terminal and for transmitting the certificate to the

automated information providing means through a communication network with a view to verifying the validity of user authentication (Forrest: [0041] lines 5-17: transmitting X509 certificates to set up public key infrastructure).

5. As per claim 2, Forrest discloses the system set forth in claim 1. Forrest further discloses wherein the mobile terminal possesses applications including a security library for providing information required for processing of security service with being linked to a security service program (Forrest: [0040]: the secure memory within the security module provides information required), a certificate storing unit for storing the certificate provided by the certificate providing means (Forrest: [0041] lines 10-13: storing the certificate), a certificate issuance processing module for processing tasks required for letting the certificate providing means issue a certificate by generating a pair of a private key and a public key (Forrest: [0041] lines 17-22), a security service module for providing security service for issuance of the certificate and processing of the electronic signature data (Forrest: [0041] lines 5-20), a certificate management module for managing the issued certificate, and an electronic signature service module for performing an electronic signing and data encryption and decryption using the issued certificate (Forrest: [0041] lines 1-4: secure data communication using public keys).

6. As per claim 3, Forrest discloses the system set forth in claim 2. Forrest further discloses wherein the mobile terminal includes an infrared communication processing unit for transmitting/receiving an infrared signal for user authentication by transmitting the electronic

signature data in the form of an infrared signal (Forrest: [0036] lines 15-18).

7. As per claim 4, Forrest discloses the system set forth in claim 1. Forrest further discloses wherein the automated information providing means comprises a keypad for receiving user input for requesting the particular service (Forrest: Figure 3 and [0035] lines 4: keyboard 28 for user input), an infrared communication unit for transmitting/receiving an infrared signal for user authentication by receiving the electronic signature data from the mobile terminal (Forrest: figure 3: communication interface 44; [0036] lines 15-16: IR ports), a control module for controlling the progress of the particular service by verifying the validity of the electronic signature data from the mobile terminal using the certificate provided by the certificate providing means (Forrest: figure 3 and [0036]: control application 46), a security library for providing information required for verification of the electronic signature data in conjunction with a validation control function of the control module (Forrest: figure 3 and [0036]: secure memory 47), a network interface adaptor for exchanging data for user authentication by connecting to the certificate providing means through a communication network (Forrest: figure 3: control unit 46 communicates with control center), and an information providing module for providing the requested service under the control of the control module (Forrest: [0036] lines 8-9: controlling access to transaction).

8. As per claim 5, Forrest discloses the system set forth in claim 4. Forrest further discloses wherein the control module belonging to the automated information providing means receives the certificate and a certificate revocation list from the certificate providing means (Forrest:

[0042] lines 6-9: certificate revocation list), verifies the validity of the certificate based on the certificate revocation list, and performs the verification of the electronic signature data and authentication of the user using the certificate (Forrest: [0041] lines 6-9: standard revocation procedure adopted in PKI infrastructure).

9. As per claim 6, Forrest discloses the system set forth in claim 1. Forrest further discloses wherein the mobile terminal and the automated information providing means exchange the electronic signature data by way of OBEX (Object Exchange Services) included in a protocol stack for the infrared communication (Forrest: [0049] lines 5-10: the use of IR port is commonplace and OBEX is commonly used protocol for IR communication).

10. As per claim 7-12, claims 7-12 encompass the same scope as claims 1-6. Therefore, claims 7-12 are rejected based on the same reason set forth above in rejecting claims 1-6.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rose et al. U.S. Pat. No. 7251730 discloses authentication method involving the use of infrared and mobile communication.

Berube et al. U.S. Pat. No. 7130454 discloses real-time facial recognition and verification system.

Letsinger U.S. Pat. No. 7322043 discloses allowing an electronic device accessing a service to be authenticated.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHIN-HON CHEN whose telephone number is (571)272-3789. The examiner can normally be reached on Monday through Friday 8:30am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shin-Hon Chen/  
Examiner, Art Unit 2131

Shin-Hon Chen  
Examiner  
Art Unit 2131